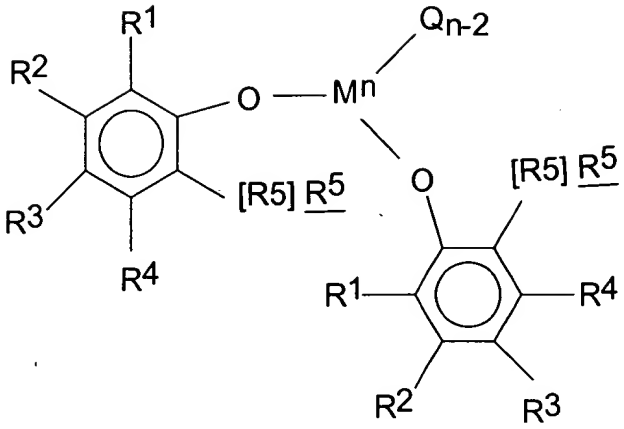


wherein R^1 to R^5 may be independently hydrogen, a heteroatom containing group or a C_1 to C_{100} group provided that at least one of R^2 to R^5 is a group containing a heteroatom, any of R^1 to R^5 may or may not be bound to the metal M,
O is oxygen,
M is a [group] Group 4 to 10 transition metal or a lanthanide metal,
n is the valence state of M, Q is an anionic ligand or a bond to an R group containing a heteroatom which may be any of R^1 to R^5, and
further provided that:

a) if M is a [group] Group 4 metal then R^5 may not be an aldehyde or an ester;
b) if M is nickel then R^5 may not be an imine;
c) the R^4 and R^5 groups do not form pyridine in the first formula if M is a [group] Group 4 metal; [and]
d) the R^4 and R^5 group do not form pyridine in at least one ring of the second formula if M is a [group] Group 4 metal[.], and
e) if one of R^1 to R^5 comprises oxygen then the other heteroatom is not oxygen.

Claim 42, page 44, line 6, please delete the word "group" and substitute therefor --- Group ---.

Claim 46, please delete the word "group" and substitute therefor --- Group ---.

Please cancel claim 50 to 54 inclusive.

Remarks

Reconsideration of the above-identified application in view of the above amendments and remarks following is respectfully asked.

Claims 1 to 49 are before the Examiner. Claims 50 to 54 have been cancelled. Claim 1 to 3, 5, 7, 11, 12, 15, 42 and 46 has been amended. The claims have been amended so as to clearly show that hydroquinones are not included within the claimed invention and to set forth that aluminum alkyls such as TMA or DEAC are included within the claims. The remainder of the amendments relate to informalities. The Examiner has indicated that claims 40 and 41 are allowable and that

claims 7, 11, 12, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form.

The Examiner has required restriction to the following:

I. Claims 1 to 54, drawn to a catalyst system, classified in class 502, subclass 103+.
II. Claims 55 to 72, drawn to a polymerization process, classified in class 526, subclass 110+.
III. Claims 73 and 75, drawn to a polymerization process, classified in class 526, subclass 1+.
IV. Claims 74 and 76, drawn to a process of screening, classified in class 526, subclass 348.

The examiner urges that the process (II) and product (I) are distinct because the product can be used in a materially different process such as isomerization or hydrogenation of alkenes. The examiner has presented a conclusionary statement without any supportive evidence. It is asked that the examiner present evidence that the claimed product can be used for the isomerization or hydrogenation of alkenes. Absent such evidence it is respectfully urged that the examiner has not shown that the inventions are distinct.

The Examiner urges that the process (III) and product (I) are distinct because the intermediate product can be used as UV absorber. The examiner has presented a conclusionary statement without any supportive evidence. It is asked that the examiner present evidence that the claimed intermediate product can be used as a UV absorber. Absent such evidence it is respectfully urged that the examiner has not shown that the inventions are distinct.

The examiner urges that inventions (II) and (IV) are unrelated. It is respectfully submitted that the two groups are related in that they are drawn to polymerization processes.

In view of the above it is respectfully urged that the restriction requirement be withdrawn. In any event the provisional election made with traverse in hereby affirmed.

Claims 1, 2, 13, 15 to 19, 22, 27, 28, 34, 35, 37 and 38 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Milani et al. In view of the amendments to the relevant claims, this rejection is respectfully traversed. In all instances Milani et al. use as an activator either n-butyl perchlorocrotonate or ethyltrichloroacetate together with DEAC. The instant claims do not include activators such as n-butyl perchlorocrotonate or ethyltrichloroacetate. Absent such compounds in applicants claimed invention it is urged that a rejection under 35 U.S.C. § 102(b) does not obtain. Withdrawal of the rejection is respectfully asked.

Claims 1, 2, 13, 15, 16, 19, 20, 21, 29 and 38 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Kelsey. In view of the amendment to the claims this rejection is respectfully traversed. Kelsey discloses hydroquinones. The claims as amended clearly exclude hydroquinones. Absent such compounds in applicants claimed invention it is urged that a rejection under 35 U.S.C. § 102(b) does not obtain. Withdrawal of the rejection is respectfully asked.

Claims 1 to 6, 8, 9, 15, 16-27, 29-32, 38, 39 and 42 to 48 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bansleben et al. (hereinafter Bansleben). The examiner recognizes that Bansleben fails to disclose an example of the above-described catalyst but suggests it would have been obvious to one ordinarily skilled in the art of transition metal catalysis to prepare such a catalyst. The Examiner then suggests that motivation is obtained because the catalyst is fairly taught by Bansleben. This rejection is respectfully traversed.

Bansleben not only fails to disclose an example of the claimed catalyst but particularly fails to name a catalyst that is even remotely structurally similar to applicants' claimed catalyst. It is respectfully submitted that if there is a failure by Bansleben to disclose an example of applicants' catalyst, how could one conclude that the catalyst is fairly taught so as to provide motivation. The MPEP maintains that the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the references. It is respectfully submitted that conclusionary statements absent supportive evidence does not constitute a convincing line of reasoning. In view of the absence of any disclosure of the claimed catalyst and any evidence to support the Examiner's position regarding obviousness and motivation it is respectfully submitted that the rejection should be withdrawn.

Claims 33 and 49 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Bansleben et al. (hereinafter Bansleben) in view of Tachikawa et al, Lee et al. and Chamla et al. The Examiner relies upon Bansleben for the same reasons as applied in his paragraph 13 and sites the secondary references to show it is well known in the art of supported catalysts that water acts as a poison and that the support material should be at least partially dehydrated if not completely dehydrated. This rejection is respectfully traversed. For reasons recited in the paragraph above it is respectfully submitted that Bansleben fails as a reference. It is respectfully submitted that the secondary references do not solve the deficiencies in Bansleben. The combination of references would not make applicants' claimed catalyst obvious hence; even if it were to be obvious to dehydrate a support it would still not make the catalyst obvious. As an aside, in the metallocene arts there are a number of patents issued to Main Chang. In several of these patents it is specifically taught to employ wet silica is the formation of the supported catalyst. In view of the absence of any disclosure of the claimed catalyst and any evidence to support the Examiner's position regarding obviousness and motivation it is respectfully submitted that the rejection should be withdrawn since the secondary references do not address the deficiencies in Bansleban other than the question of supports.

Claims 1, 2, 15 –17, 22, 29, 30, 34, 35, 37 and 38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Klabunde. The examiner recognizes that Klabunde fails to disclose an example of the above-described catalyst but suggests it would have been obvious to one ordinarily skilled in the art of transition metal catalysis to prepare such a catalyst. The Examiner then suggests that motivation is obtained because the catalyst is fairly taught by Klabunde. This rejection is respectfully traversed.

Klabunde not only fails to disclose an example of the claimed catalyst but particularly fails to name a catalyst that is remotely structurally similar to applicants' claimed catalyst. It is respectfully submitted that if there is a failure by Klabunde to disclose an example of applicants' catalyst, how could one conclude that the catalyst is fairly taught so as to provide motivation.

The MPEP maintains that the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the references. It is respectfully submitted that conclusionary statements absent supportive evidence does not constitute a convincing line of reasoning. In view of the absence of any disclosure of the claimed catalyst and any evidence to support the Examiner's position regarding obviousness and motivation it is respectfully submitted that the rejection should be withdrawn.

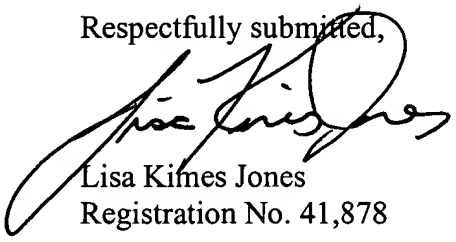
Claims 1 and 2 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al. For reason as recited regarding Klabunde and Bansleben it is respectfully submitted that the rejection fails and should be withdrawn.

Claims 1 to 3, 9 and 10 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Zum Mallen. For reason as recited regarding Klabunde and Bansleben it is respectfully submitted that the rejection fails and should be withdrawn.

Claim 36 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Kelsey. This rejection is respectfully traversed. As mentioned above, the claims have been amended to exclude hydroquinones. It is therefore respectfully submitted that the rejection should be withdrawn.

In view of the above amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Prompt notice of allowance is respectfully solicited.

Respectfully submitted,



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